BILL # HB 2429 **TITLE:** solar energy tax incentives

SPONSOR: Mason **STATUS:** As Introduced

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FISCAL ANALYSIS

Description

For the period of January 1, 2006 through December 31, 2012, the bill would expand the current solar energy income tax credit for individuals and create new tax credits for businesses.

The bill would increase the maximum individual income tax credit for a single residential solar energy device from $1,000 to $2,000 per device. The bill also increases the maximum tax credit per residence from $1,000 to $5,000, with a carry forward period of 5 years. The credit would remain at 25% of the cost of a solar device.

The credit would also be expanded to include businesses that install solar energy devices. The bill would allow a credit of 10% of the cost or $25,000 (whichever is less) per building per year, with a total limit of $50,000 per company per year. The total amount of commercial energy tax credits is capped at $7 million per year. The bill requires the Department of Commerce to evaluate and certify solar energy projects. The bill removes the current $5,000 limit on the prime contracting tax exemption for installing solar energy devices and it also exempts solar energy devices from being added to the property tax base.

Estimated Impact

The estimated incremental revenue loss from the bill is approximately $(1.8) million in FY 2007. The cost to the General Fund could be significantly higher if the credit increases current residential consumption patterns (the $7 million cap only applies to commercial credits). There are other incentives available to purchasers of solar energy equipment such as cash rebates from electric utilities and federal tax credits. These incentives can reduce the cost of a solar energy system significantly when combined with the state credit. Prospective changes in state regulatory policies may induce additional investments in solar energy devices that could increase the use of credits to $3.3 million in FY 2007, $8.2 million in FY 2008, and $17 million by FY 2010.

By eliminating the $5,000 sales tax exemption, the additional revenue loss to the General Fund would be approximately $(441,000) in existing revenue per year, which is included in the cost estimates cited above. If the enhanced income tax credits were enacted, sales of solar energy devices would increase. The prime contracting sales tax exemption would result in approximately $(395,000) in foregone General Fund revenue in FY 2007 and in FY 2008. The amount of property tax revenue that would be foregone by state and local governments is unknown.

The Department of Revenue (DOR) provided an estimate of the bill's fiscal impact based on tax year 2002 credits taken under the existing law and applying the proposed increase to the amount of tax credits claimed in that year. DOR estimated the revenue loss from the enhanced income tax credits to be $(112,000) per year. The DOR estimate, however, does not reflect the likely increase in solar usage in the last 4 years, especially in light of the deep discounts provided by the utilities' customer rebate programs.

The Department of Commerce estimates that the bill would cost approximately $100,000 per year to staff two positions – one to process credit applications and one to perform site inspections.

Analysis

Existing Tax Credits

There is uncertainty about the bill's impact due to the behavioral effects of creating new incentives to purchase solar energy devices. The current credit allows individual taxpayers to claim a tax credit for 25% of the cost of solar energy devices installed at a residence. The total amount of the credit is limited to a maximum of $1,000 over 5 years. DOR reported that in tax year 2002, the latest year for which complete information is available, 2,303 taxpayers claimed a total of $(776,000) in tax credits. A solar device used in a residence may cost from less than $1,000 to well over $20,000. This would include solar day-lighting equipment, residential water heaters, and small-scale photovoltaic (PV) energy systems. According to industry sources, commercial equipment and higher-rated residential systems are much more expensive. Customer rebate programs offered by electric utilities further reduce the cost of these systems.

Customer Rebate Programs

Since 2001, the Arizona Corporation Commission (ACC) has adopted an Environmental Portfolio Standard (EPS) that requires regulated utilities to increase the amount of renewable energy generated in the state. In order to meet these requirements, the electric distribution companies have developed programs that provide rebates to customers that install solar energy devices. The rebates significantly reduce the cost of solar energy systems. The EPS goals may be further increased in the future.

For example, an APS customer could purchase a PV system for $21,000 and receive a $10,500 rebate (50%) from the company. The customer also would be eligible for the $2,000 maximum state income tax credit provided by the bill and a federal income tax credit of 30% ($6,300). The net cost to the customer could be reduced to as little as $2,200 if all the tax credits and rebates were used (without the $1,000 increase in the state credit, that cost would have been $3,200). The same customer could also purchase a $3,000 solar water heater and receive a $700 rebate from APS, a 25% state income tax credit ($750), and the 30% federal tax credit ($900), reducing the cost to $650. The combined state tax credit of $2,750 would be well within the bill's annual limit of $5,000 per residence. Under current law, this taxpayer would be limited to a maximum of $1,000 in state tax credits per year.

Combined, the three largest utilities in the state will generate a total of approximately $(2.0) million of tax credits in 2006 under the proposed legislation. Under current law, only residential solar energy devices are eligible for a maximum of $1,000 in tax credit per device. By applying current law to the residential components of the utilities' rebate programs, approximately $(633,000) in credits would be generated in 2006. The incremental revenue loss related to the rebate programs is approximately $(1.4) million in FY 2007. The utilities have reported very strong demand for rebates through the first several weeks of 2006. The funds available are likely to be fully subscribed well before the year is over.

In the past, the tax credit was mostly used to offset the cost of solar water heaters. However, a wide range of devices qualify for the credit, including PV generators, passive systems, solar day-lighting systems, and others. Recent technological improvements in solar energy systems, combined with tax incentives and other rebates, make them more economically viable and attractive to consumers and businesses. Over time, industry representatives estimate the cost of PV devices may decline by about 5% per year. Also, it is not known how many individuals may purchase systems regardless of whether they obtain a rebate from the electric utility. The bill allows tax credits to be transferred to third parties that finance solar energy devices. This raises the risk of additional revenue losses, since the available tax credits could be spread cross a potentially larger number of buildings and residences.

Recent Developments

There are additional incentives making the costs of solar energy systems much more attractive to energy users. The Federal Energy Policy Act of 2005 created tax credits for up to 30% of the cost of residential and commercial solar energy devices. Although the federal tax credits are scheduled to expire at the end of 2007, is possible they may be extended. Regardless, it is reasonable to assume that the array of solar energy incentives available for the next two years will sustain a high level of demand, and related state tax credits, through FY 2008.

Taken together, there are trends in the solar energy industry that are increasing financial incentives, reducing system costs and raising requirements for utilities to increase the amount of solar energy produced. Demand for solar energy equipment appears to be expanding, which could potentially increase future revenue losses from HB 2429. The bill's $7 million cap on

commercial tax credits will limit much of the potential revenue loss, but the demand for residential solar systems is likely to increase steadily over time.

Prime Contracting Sales Tax Exemption

DOR estimated that the current prime contracting sales tax exemption for solar energy devices, which is limited to a maximum of $5,000 per device, had a General Fund revenue impact of $(367,000) in FY 2005. If the $5,000 cap was removed without changing the existing income tax credits, and there were no significant regulatory policy changes, the additional revenue loss to General Fund would be approximately $(441,000) per year in FY 2007 and FY 2008. If the bill's income tax credits are enacted, the General Fund would forego $(395,000) in FY 2007 and in FY 2008.

Department of Commerce Administration

According to the Department of Commerce, the commercial component of the tax credits would require it to review and certify approximately 350 solar energy projects each year. One FTE position would be needed to review applications and administer the program, and one more FTE employee would be needed to perform field inspections and audits. Commerce estimated the combined cost of the two positions to be $100,000, including benefits. Since HB 2429 does not provide funding for these positions, the cost would be incurred by the General Fund.

Local Government Impact

After the state's shares are retained from prime contracting sales tax revenue, the remainder is distributed by statute to cities and counties. Removing the $5,000 cap in the prime contracting sales tax exemption would reduce the counties' share of existing revenue by approximately $(36,000) in FY 2007 and in FY 2008, with the cities' share reduced by $(22,000) in both fiscal years. If the bill's income tax credit enhancements are enacted, the counties would forego an additional $(32,000) in FY 2007 and in FY 2008, while the sales tax revenue foregone by the cities would be $(20,000) in FY 2007 and in FY 2008.

Each year cities and towns receive an amount equal to 15% of income tax collections from two years prior. With a $(1.4) million state income tax impact, local government distributions would decline by $(203,000) in FY 2009 and in FY 2010.

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